

Interdisciplinarity@WMU- Phase One planning Template

- 1. Brief Overview:** Provide a brief overview of the proposed interdisciplinary initiative. What types of questions would the initiative ask? What types of complex problems would it seek to solve?

This proposal is to establish an Institute for Climate Change Solutions (ICCS). Climate change is a profoundly complex, wicked problem that will affect all human societies and natural ecosystems. We need to reimagine a future very different from our current reality, and we need to prepare our students to help solve the novel scientific, technological, political, and social challenges climate change will create in their lifetimes. Higher education must provide students the interdisciplinary training necessary to integrate knowledge and skills from multiple fields to help solve the most complex global issues of the 21st century.

The ICCS would provide a formal academic home to legitimize, unite, and expand upon the existing initiatives of the faculty-led WMU Climate Change Working Group (CCWG). The proposed ICCS is envisioned as a stand-alone entity that would fuse together various activities on campus and in our local community in order to more effectively:

- 1) Educate students to use information from multiple disciplines, including cross-college curriculum, to contribute to both climate change mitigation (prevention) and adaptation (preparing society for climate change that is not prevented);
- 2) Foster and integrate interdisciplinary research into planning and policy to develop practical solutions to specific climate change challenges;
- 3) Facilitate community partnerships and provide opportunities for citizens, faculty and students to engage in applied climate-action projects;
- 4) Pursue and secure grants, funding opportunities, and initiatives with other similar university-based institutes, centers, or programs, and with governmental, private, and non-profit institutions at local, national, and international levels.

The CCWG is enthusiastic about committing time and expertise to create the ICCS, to build on WMU's accomplishments, and to help WMU realize future ambitions in climate change education, research, and outreach.

- 2. Impacted units:** What existing units, programs, and colleges would be involved in the proposed initiative? What other possibilities for collaboration across campus or in the broader community might exist now or in the future?

The ICCS will build upon existing faculty initiatives that have already adopted an interdisciplinary approach as essential to developing knowledge and encouraging action.

Currently, the CCWG is housed in the University Center for the Humanities, partners with the Office for Sustainability, and involves over 100 faculty and staff members from at least three colleges (College of Arts and Sciences, College of Education and Human Development, and Haworth College of Business) and 18 units (Biological Sciences, Chemistry, Comparative Religion, Economics, English, Environment and Sustainability, Family and Consumer Sciences, Gender and Women's Studies, Geography Environment and Tourism, Geological and Environmental Sciences, History, Interior Design, Nutrition and Dietetics, Philosophy, Physics, Political Science, Psychology, and Sociology). The proposed ICCS would continue to attract and support faculty interested in incorporating climate change into their disciplinary approaches, as well as seek future campus collaborations with all Colleges, Lewis Walker Institute, Ethics Center, Student Engagement, and WMU Signature.

As a recognized academic unit, the ICCS would provide a visible structure to connect faculty, staff, students, and community members in addressing climate change, and allow for formal partnerships in grant applications, applied scholarship, experiential and service learning projects. The CCWG is highly connected with community organizations, including the newly formed Kalamazoo Climate Crisis Coalition, which unites nearly 2,000 individuals from businesses, government, and more than 25 local youth, faith, educational, peace, environmental and climate action groups (e.g. Kalamazoo Nature Center, Kalsec, Kalamazoo Public Library, Kalamazoo River Watershed Council, and League of Women Voters). Thinking globally, ICCS further aspires to develop state, national, and international educational initiatives, research collaborations, and strategic partnerships.

- 3. Impact on teaching, learning, and curricula:** Describe the anticipated impact of the proposed initiative on teaching, learning, and curricula. How might this initiative help to grow enrollment, including by reaching new audiences of learners through continuing education, dual enrollment, or professional certification? How will the proposed initiative positively impact the training of undergraduate and graduate students? How does it enhance our institutional commitment to diversity, equity, and inclusion?

The ICCS will enhance teaching and learning in two major ways: 1) provide a cohesive academic structure for all existing climate change curricula, and 2) catalyze the creation of new interdisciplinary teaching and learning opportunities. The ICCS will unite administration of the Minor in Climate Change Studies (College of Arts & Sciences) and the Graduate Certificate in Climate Change Policy and Management (Department of Political Science). The continued expansion of climate change courses will allow the ICCS to develop and house an undergraduate Major in Climate Change Studies. Envisioned as a coordinate major, it would allow students to be anchored in a discipline while obtaining interdisciplinary knowledge from across the natural and social sciences and humanities. Like the existing Minor and Graduate Certificate, a new Major would offer dual or complementary enrollment options intended to pair with any other discipline or program of study across campus. This produces students that are marketable for entities in all career paths that will necessarily have to confront the challenges of climate change.

The ICCS will help grow enrollment by offering a unique curriculum that integrates climate change across WMU, providing prospective students with a clear educational pathway. The ICCS model will provide students from all fields a welcoming entry point to complement their disciplinary knowledge with the problem-solving skills necessary to address the climate crisis. The faculty share a deep moral and ethical concern for climate justice, and provide coursework and outreach rooted in the values of diversity, equity, and inclusion. The ICCS envisions

partnerships with governmental and community entities that incorporate service and experiential learning opportunities for students to explicitly integrate interdisciplinary approaches to addressing climate change. The ICCS will make WMU a campus of choice for all students concerned about their future.

- 4. Impact on research and creative activity:** Describe the anticipated impact of the proposed initiative on research and creative activity. How will this initiative promote discovery and creative scholarship? How might it result in increased external funding?

The ICCS will facilitate research and creative activities by providing an institutional home and intellectual support for collaboration that addresses specific problems that climate change raises for society; for example, transitions to renewable energy, increasing energy efficiency, adapting to greater weather extremes, analyzing governance institutions, economic and social policies, supporting climate migrants, and a host of issues that cascade from these. The ICCS will support analyses at all levels, from local to global, with any disciplinary configuration, as long as they address specific climate change challenges and help to identify practical solutions.

The ICCS will provide a forum for presenting and discussing ideas, research papers, and proposals to help scholars deepen their interdisciplinary perspectives, enhance the quality of their proposals, and integrate faculty and students into community problem solving. Interdisciplinary collaborations increase the potential for external funding because each discipline brings a different set of applicable funding organizations, especially as climate change is increasingly infused in government and other entities funding priorities. The ICCS will develop grant proposals and organize funding efforts through collaboration not only within WMU, but also with other institutions, universities, public schools, governmental agencies, private and non-profit organizations.

Grants could provide opportunities for sponsored research, paid internships, and various forms of practical experience that will enhance teaching and scholarship and contribute to important climate change initiatives. This, in turn, will raise WMU's profile and encourage more applications to our undergraduate and graduate programs, further establishing WMU as a leading research institution while enhancing our visibility to potential external collaborators and donors.

- 5. Efficiencies and/or cost savings:** How might the proposed initiative contribute to increased efficiencies and/or cost savings, for example by reducing administrative positions (e.g. chairs/directors), sharing staff support services and/or by sharing facilities?

Uniting the existing climate change teaching, research, and service under one academic home, the ICCS, will streamline the ways that faculty, staff, students, and the community interact. Currently, the Climate Change Working Group organizes itself and makes decisions through a chair and executive committee, essentially operating as its own department with an existing website, fund and cost centers, and staff support from a variety of units. Yet, since it does not have official status as an academic unit, the process of accomplishing any goals is generally quite complicated, often duplicative, and overly cumbersome. The ICCS would be able to generate its own curricular improvements, and independently do the curriculum change process instead of having to go through multiple departments. Similarly, the ICCS would allow the direct use of existing funds from donors and provide a singular institutional home for grants

and contracts. In short, the current model of faculty working through the various structures of the University Center for the Humanities, the Office for Sustainability, the College of Arts & Sciences and the Department of Political Science creates a quagmire of unofficial faculty and staff assignments that could easily be rolled into one shared staff position.

The ICCS curricular model of dual and complementary programs will attract new students and already increases enrollment in courses taught across campus as the inclusive coursework highlights different disciplinary avenues. The proposed initiative should continue to result in more fully-enrolled courses within disciplinary homes that contribute to the overall interdisciplinary climate change curriculum. The ICCS would likely generate revenue for all departments/colleges involved as the program of study should attract students who are interested in integrating their disciplinary path with their passion for combatting climate change in this one-of-a-kind academic program.

- 6. Impact on course offerings and workload:** At present, proposed initiatives will only be feasible and sustainable if they can be supported by existing resources, including instructional capacity, faculty and staff time, and facilities. Will the proposed initiative streamline existing course or program offerings? Could the initiative help create more equitable and sustainable workload for faculty, for example, by reducing the need to offer under enrolled courses, reducing the frequency of course offerings or eliminating the need to teach some courses?

The proposed ICCS is a sustainable model that relies only on existing faculty and staff resources. The proposal should streamline staff time, as currently at least four different units contribute some staff support that could be officially designated as a half-time job description of one shared position. All courses are already being offered and are taught on a regular basis, with many being offered at least once a year or once every other year. All of the classes have the capacity to enroll more students. As the curriculum improvements and expansion continues, it is the expectation that more courses across WMU would be included in the Minor, Graduate Certificate, and potential coordinate major. This will have a streamlining effect on not only the climate change courses, but allow for flexibility within units to continue to provide equity in faculty workload while benefitting from high enrollment due to course inclusion in ICCS curriculum.

The initiative will help create more equitable and sustainable workload for faculty. The current voluntary contributions by the members of the Climate Change Working Group represent extensive hours spent on service, teaching, and research that are not formally incorporated into their workload. These faculty have contributed greatly to WMU to build the existing climate change curriculum, outreach, and research agenda. This proposal would formally recognize faculty workload that contributes to meeting the mission of interdisciplinarity through affiliate or courtesy appointments in ICCS. Moreover, the ICCS would be able to expand upon the successful climate change teaching fellows program and offer the financial and intellectual support that faculty require to maintain interdisciplinary approaches in teaching and research. The proposal would require a Director to at least receive some course release in order to not just sustain the current programs, but to build upon those initiatives to fulfill the mission of the ICCS.

- 7. Additional Information:** What additional information would you like to provide in support of this proposal?

The ICCS has the potential to build upon existing excellence and further establish WMU as a leading institution imagining and creating a better future. As the climate crisis continues to unfold, understanding, developing and implementing solutions will be more apparent and more urgent. The Climate Change Working Group is committed to promoting, supporting, and collaborating to ensure the success of the new Institute, to address climate change more richly, and to further contribute to the goals of a learner-centered, discovery-driven, and globally engaged university. Through the ICCS we can more effectively and efficiently bring together all stakeholders to develop students for 21st century careers, direct applied research to solving the climate crisis, and engage citizenry in activities related to climate change adaptation and mitigation. We believe the ICCS will provide the following outcomes:

- 1) Attract new students to WMU to study climate change.
- 2) Foster outstanding learning and discovery experiences and high student satisfaction through integrated interdisciplinary programming, service-learning and applied research teaching models.
- 3) Provide students with experiences and professional networks to aid in job placement upon graduation.
- 4) Improve connections between faculty, students, and community partners.
- 5) Increase the production of high-quality climate-related research—including peer-reviewed, professional, and popular publications—by promoting internal research collaborations, securing grants or other extramural funding, and engaging students and stakeholders in applied research.
- 6) Promote interaction among scientists, policy makers, community planners, and the public through the application of academic knowledge to practical problems and experiences to create more desirable social outcomes.
- 7) Enhance Western Michigan University’s recognized forward-looking national leadership on climate change and sustainability.

8. Contact

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